

## WHAT IS CLAIMED IS

1. A three-dimension image processing system, including an image processing apparatus connected to a display to generate image data for displaying an object existing in a three-dimensional space on said display according to a program, and an operating device including an operating member having a base end rotatably supported and a free end operable by an operator, so that the image data is varied in accordance with movement of said operating member,

wherein said operating device includes an inclination amount data output means which detects an inclination amount of said operating member to output inclination amount data, and

wherein said image processing apparatus comprises:

a direction determining means which determines a moving direction of the object in the three-dimensional space based on the inclination amount data;

a moving amount determining means which determines a moving amount of the object within one frame on said display;

a position determining means which determines a position of the object in the three-dimensional space in accordance with the moving direction and the moving amount; and

an image data output means which outputs image data for displaying the object on said display at a position controlled by said position determining means.

2. A three-dimension image processing system according to claim 1, wherein said moving amount determining means includes a first calculating means that calculates the moving amount based on the inclination amount data, a moving amount storing means that stores an actual moving amount, immediately before, of the object, a comparing means that compares the actual moving amount in said moving amount

storing means with the moving amount by said first calculating means, and a moving amount varying means that increases and decreases the moving amount calculated by said calculating means depending on a result of comparison by said comparing means.

3. A three-dimension image processing system according to claim 2, wherein  
5 said first calculating means calculates from the inclination amount data a moving amount which together with a predetermined value are calculated into the moving amount.

4. A three-dimension image processing system according to claim 2, wherein  
10 said moving amount varying means increases and decreases the moving amount in accordance with a function of moving amount in said moving amount storing means.

5. A three-dimension image processing system according to claim 2, wherein  
said moving amount varying means increases and decreases the moving amount in accordance with a constant value.

Q. 6. A three-dimension image processing system according to <sup>Claim 1</sup> ~~any of claims 1 to 5,~~  
15 wherein said moving direction determining means includes a second calculating means that calculates the inclining direction of said operating member based on the inclination amount data, wherein the moving direction is determined based on the inclining direction and a camera angle.

7. In a three-dimension image processing system including an image processing  
20 apparatus connected to a display to generate image data for displaying an object existing in a three-dimensional space on said display, and an operating device including an operating member having a base end rotatably supported, a free end operable by an operator, and an inclination amount data output means which detects an inclination amount to output inclination amount data, so that the image data is varied depending on  
25 movement of said operating member, wherein a program storing medium is stored with a

program for generating the image data, said program storing means comprising the program adapted for:

(a) determining a moving direction of the object in the three-dimensional space based on the inclination amount data;

5 (b) determining a moving amount of the object to be moved within one frame on said display based on the inclination amount;

(c) determining a position of the object in the three-dimensional space depending on the moving direction and the moving amount; and

10 (d) outputting the image data for displaying the object at the position thus determined.

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15 8. A program storing medium according to claim 7, wherein said image processing apparatus includes a storing means that stores an actual moving amount of the object, and said program is adapted for (d1) determining the moving amount based on the inclination amount data, (d2) comparing the actual moving amount stored by said storing means with the determined moving amount, and (d3) increasing and decreasing the determined moving amount depending on the comparing result.

9. A program storing medium according to claim 8, wherein said program is adapted for determining the moving amount from a moving amount which is calculated based on the inclination amount data and a predetermined value.

20 10. A program storing medium according to claim 8, wherein said program is adapted for increasing and decreasing the determined moving amount in accordance with a function of moving amount stored by said moving amount storing means.

25 11. A program storing medium according to claim 8, wherein said program is adapted for increasing and decreasing the determined moving amount in accordance with a constant value.

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12. A program storing medium according to <sup>claim 7</sup> ~~any of claims 7 to 11~~, wherein said program is adapted for (a1) calculating the inclination direction based on the inclination amount data, and (a2) determining the moving direction based on the inclination direction and a camera angle.